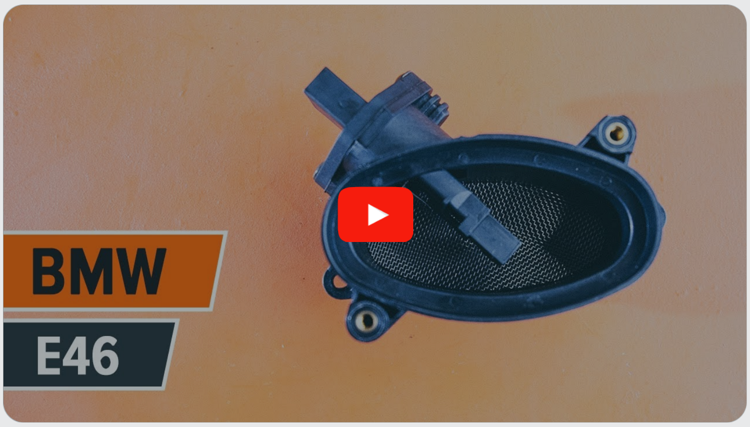
AUTODOC CLUB

How to change mass air flow sensor on **BMW 3 Coupe (E46)** – replacement guide

SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

Important!

This replacement procedure can be used for:
BMW 3 Coupe (E46) 320Cd 2.0

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: BMW 3 Touring (E46) 320d 2.0

REPLACEMENT: MASS AIR FLOW SENSOR – BMW 3 COUPE (E46). LIST OF THE TOOLS YOU'LL NEED:



- Electronic spray
- Torque wrench
- Drive socket # 12
- HEX bit No.H5
- Torx bit T25
- Torx bit T30
- Ratchet wrench
- Microfibre towel
- Fender cover

Buy tools

Replacement: mass air flow sensor – BMW 3 Coupe (E46). AUTODOC experts recommend:

- Clear the trouble codes from the electronic control unit if necessary.
- Make sure that no dust or dirt gets into the air duct components and the throttle body.
- Please note: all work on the car – BMW 3 Coupe (E46) – should be done with the engine switched off.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1 Open the bonnet.

2 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

3 Unscrew the engine cover fastener. Use HEX No.H5. Use a ratchet wrench.



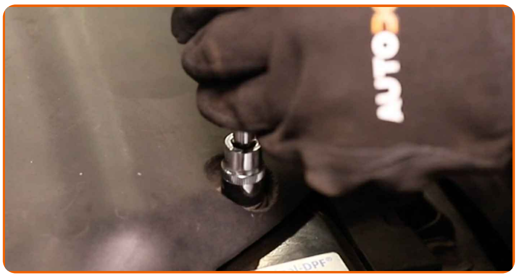
4 Remove the engine cover.



AUTODOC recommends:

- Replacement: mass air flow sensor – BMW 3 Coupe (E46). Do not use excessive force when removing the part as this may damage it.

5 Unscrew the fasteners of the air distribution housing assembly. Use a drive socket #12. Use a ratchet wrench.



6 Remove the air distribution housing assembly.



7 Release the cabin filter cover clips.



8 Remove the cabin filter cover.



9

Remove the cabin filter.



Replacement: mass air flow sensor – BMW 3 Coupe (E46). Tip from AUTODOC:

- Do not attempt to clean and reuse the filter - it will affect the quality of air cleaning inside the car.

10

Unscrew the fasteners of the cabin filter housing. Use Torx T30. Use a ratchet wrench.



11

Remove the cabin filter housing.



12 Unscrew the engine cover fastener. Use HEX No.H5. Use a ratchet wrench.



13 Remove the engine cover.

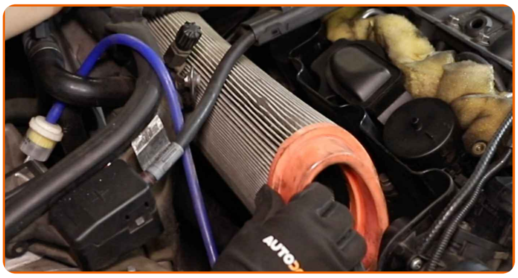


AUTODOC recommends:

- Replacement: mass air flow sensor – BMW 3 Coupe (E46). To avoid damaging the part when removing it, do not use excessive force.

14 Remove the air distribution housing assembly.

15 Remove the filter element from the filter housing.



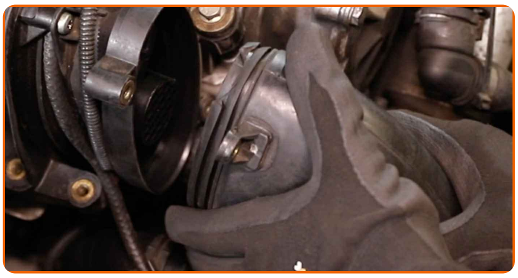
16

Unscrew the fasteners that connect the air duct to the MAF sensor. Use HEX No.H5. Use a ratchet wrench.



17

Remove the air duct.



18

Cover the air intake hose with a microfibre towel to prevent dust and dirt from getting into the system.



19

Detach the mass air flow sensor connector.



20 Unscrew the MAF sensor fasteners. Use Torx T25. Use a ratchet wrench.



21 Remove the mass air flow sensor.



22 Install a new mass air flow sensor.



23 Tighten the MAF sensor fasteners. Use Torx T25. Use a torque wrench. Tighten it to 8 Nm torque.



24 Remove the microfibre towel from the air intake hose.

25 Install the air duct.



26 Tighten the fasteners that connect the air duct to the MAF sensor. Use HEX No.H5. Use a torque wrench. Tighten it to 5 Nm torque.



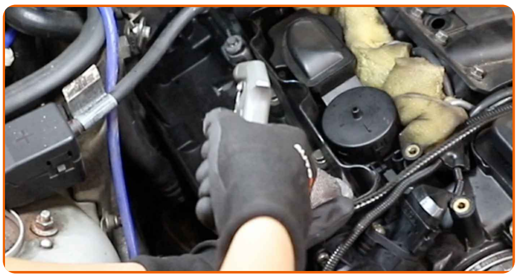
27 Treat the mass air flow sensor connector. Use dielectric grease.



28 Attach the mass air flow sensor connector.



29 Clean the air filter cover and housing.



30

Insert the filter cartridge into the filter housing. Make sure that the filter edge fits tight to the housing.



31

Install the engine cover and secure it.

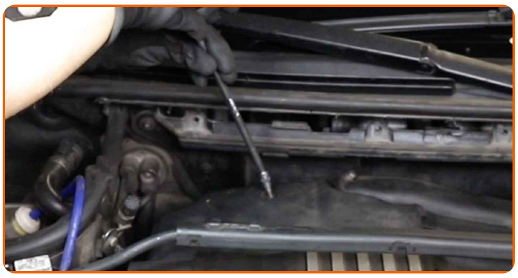


AUTODOC recommends:

- Replacement: mass air flow sensor – BMW 3 Coupe (E46). To avoid damaging the part during installation, do not use excessive force.

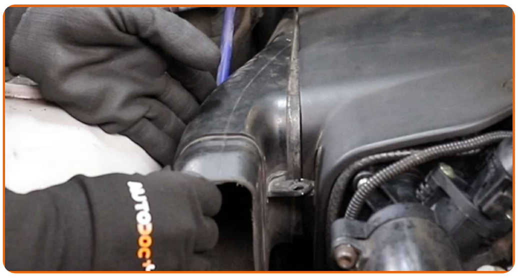
32

Screw in the engine cover fasteners. Use HEX No.H5. Use a ratchet wrench.



33

Reinstall the air distribution housing assembly.



34

Install the cabin filter housing.



35

Screw in the fasteners of the cabin filter housing. Use Torx T30. Use a ratchet wrench.



36

Install the cabin filter to its mounting seat.



37

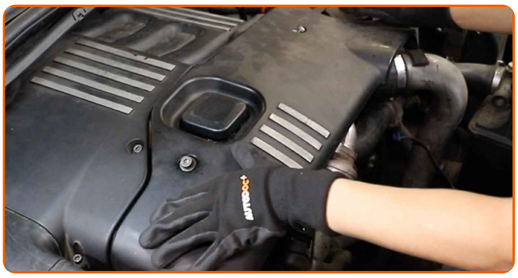
Install the filter cover.



38 Attach the cabin filter cover clips.



39 Install the engine cover and secure it.



AUTODOC recommends:

- Replacement: mass air flow sensor – BMW 3 Coupe (E46). Do not use excessive force during installation. This may damage the part.

40 Screw in the engine cover fasteners. Use HEX No.H5. Use a ratchet wrench.



41 Reinstall the air distribution housing assembly.



42

Screw in the fasteners of the air distribution housing assembly. Use a drive socket #12. Use a ratchet wrench.



43

Remove the fender protection cover.

44

Run the engine for a few minutes. This is necessary in order to make sure that the component operates properly.

45

Shut off the engine.

46

Close the hood.

WELL DONE!

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MASS AIR FLOW SENSOR: A WIDE SELECTION

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